Cost Containment Policy for Energy Projects
Revised April 26, 2002

Background

The first mandated purpose of the Denali Commission is "To deliver the services of the Federal Government in the most cost-effective manner practicable." (Denali Commission Act of 1998, 42 USC 3121). The Commission is provided finite funding from federal entities. Since such public resources are scarce, it is critical that the Commission and its partners provide services to the Alaskan communities where they are most needed, and in a manner representing the highest feasible utilization of funds.

The Commission is committed to both internal and external cost containment for all of its programs. The Commission complies with the commitment by keeping administrative and overhead costs well below its statutory limit of five percent. Federal OMB Circular No. A-123 mandates that "Agency Managers are responsible for taking timely and effective action to correct deficiencies…. Correcting deficiencies is an integral part of management accountability and must be considered a priority by the agency."

Denali Commission partners are also conscious of the need to limit overhead charges and maximize funds actually flowing to building community projects. Both Alaska Village Electric Cooperative and Alaska Energy Authority have agreed to donate the cost of their indirect services to Commission projects.

While this is a good beginning, the Commission recognizes that additional cost containment efforts could yield additional project savings. These efforts include minimizing both design and construction costs for energy projects. Analysis of final construction costs of projects presently or previously funded by the Commission indicates a significant escalation of unit costs over time, and the initial costs were believed to be somewhat inflated.

All Denali Commission projects are to be sustainable and that requires examining projects on a life cycle cost basis in the context of the Community's long-term development plan. The trade-offs between initial costs of construction and long-term operating and maintenance costs must seek to minimize the true life cycle costs of the project.

This policy describes the methods and approaches to be used to contain costs for energy

1. ***Cost Effective Designs.*** Cost containment requires that designs provide cost-effective solutions for the needs of Alaskan communities. Capacity and other design and site decisions should be based on a comprehensive community plan. Designs should be selected that address the identified needs in the most cost-effective manner feasible, considering operational and maintenance costs as well as construction costs to yield the lowest life cycle costs. This may mean implementing innovative technologies that provide real life cycle cost savings; or it may mean using very simple technologies that are sufficiently effective instead of more expensive approaches that increase costs without substantial benefit.

2. ***Need Specific Designs.*** Project cost containment dictates that designs directly provide real, substantial and quantifiable benefits addressing specific Alaskan community needs. Designs should not be expanded to address other needs or desires within the community, unless those increased costs are funded from another source or explicitly approved by the Commission. Similarly, designs should not be based on unrealistic or unsubstantiated estimates for increased demand (See Commission Policy for Energy Design Capacity). Projects should not result in expenditures for items providing little or no real benefit, or that are outside the program goals. Design components need to be limited to items that address real, identified needs in a beneficial manner, and are not merely "convenience" items. Required components should not be "over-designed" for the sake of community convenience, nor based on unreasonable projections.

3. ***Competitive Procurement***. Cost containment requires that products, labor, materials, transportation, services, and other items must be provided at fair and cost-competitive prices for best value considering all the Denali Commission goals.

4. ***Effective Project Management***. Cost containment requires that actual construction activities be competently managed to minimize or eliminate costs associated with scheduling, vendor coordination, material delivery, efficient utilization of labor and similar items. This will result in minimizing or eliminating unexpected costs from delays or other issues.

5. ***Maximization of Cost Benefit via Project Selection***. Part of cost containment is ensuring the greatest benefit for the cost. If a project exhibits abnormally high unit costs, even for valid reasons, the overall greatest benefit may be to fund projects with equally valid needs that can be completed for lower unit costs.

projects with the cost containment criteria listed above and with other policies promulgated by the Commission focusing on the costs versus benefits of such projects.

The assessment process is staged to quickly expedite approval of projects identified as anomalous when the anomalies can be easily justified. Only those projects lacking adequate justification are targeted for more detailed review. The procedure provides similar steps at the detailed design level, and during construction. The steps for this cost containment procedure are described below, and are summarized graphically on the attached flow chart, for cost containment during project development and implementation.

1. Projects for new construction (or for consolidation projects that include retrofitting of bulk fuel storage projects) will continue to be initiated through Conceptual Design Reports (CDRs) and Business Plans (BPs). The CDR for each project ***must*** adequately define the real and specific needs of the project. A separate Denali Commission policy defines procedures for determining acceptable capacities for bulk fuel storage and power upgrade projects. In addition, existing capacity provides a baseline for evaluating actual required project capacities, so the CDR needs to include information on three items to confirm that costs and capacities are not anomalously high.

    a. The CDR should compare the proposed capacity with guidance in the Denali Commission Energy Project Design Capacity Policy to determine whether the capacity is within policy limits.

    b. The CDR must demonstrate compliance with the Commission's policy on design capacity. For bulk fuel projects, the CDR should compare existing versus proposed capacity to determine whether the capacity increase is 20% or less.

    c. The CDR should compare the unit cost for the project to the unit costs below to determine whether project unit costs are less than or equal to benchmark design values.

        i. Bulk Fuel Projects

        For the following numbers, unit costs are to be calculated as the **total** project budget divided by the total design storage capacity. A larger capacity project should relate to the lower end of the cost range for each capacity level.

400,001 – 500,000 gallons	$7.50 to $6.50 per gallon
Greater than 500,000 gallons	$6.50 to $2.50 per gallon

ii. Complete Diesel Power Plants

For the following numbers, unit costs are to be calculated as the **total** project budget divided by the total design power generation capacity. . A larger capacity project should relate to the lower end of the cost range for each capacity level.

Capacity	Benchmark Unit Costs
0 – 200 kilowatts	$5,500 to $3,500 per kilowatt
201 – 400 kilowatts	$3,500 to $2,900 per kilowatt
400 – 600 kilowatts	$2,900 to $2,400 per kilowatt
601 – 800 kilowatts	$2,400 to $1,900 per kilowatt
801 – 1,000 kilowatts	$1,900 to $1,600 per kilowatt
1,001 – 1,200 kilowatts	$1,600 to $1,250 per kilowatt
Greater than 1,200 kilowatts	$1,250 to $500 per kilowatt

The Denali Commission will review these benchmarks periodically, and make adjustments as appropriate based on the best available information.

2. If the project is in compliance with all three items above, the award partner Project Manager should so notify the Commission by separate correspondence at the time the CDR is submitted. Based on this certification, and excluding other factors impacting project advancement, the Denali Commission staff will note the project as ready for detailed design funding.
3. If the project is not in compliance with one or more of the criteria, a separate correspondence should be submitted identifying which criteria are outside project limits, and provide a justification for exceeding those limits. The justification, signed by the award partner Project Manager, should be concise, but sufficiently detailed to allow Commission staff to evaluate the justification.
4. If the justification is found to be adequate by the Denali Commission staff, and the project demonstrates sufficient benefit for the associated costs, the Denali Commission staff will note the project as ready for detailed design funding. If the

mission of the Commission, the award partner will be offered the opportunity to modify the design for compliance. The Denali Commission may define specific criteria limits for the project that are greater than those presented above. If the award partner and the village believe that the limits established by the Commission are too stringent, they may appeal to the Infrastructure Sub-Committee. If the Sub-Committee approves the original design, the Denali Commission staff will note the project as ready for detailed design funding. If the Sub-Committee agrees with Commission staff findings, the award partner and village can either modify the design to comply, or the project will be terminated.

6. For projects that are essentially repair or additions to an existing system, including line extension and line upgrades, the award partner Project Manager should submit separate correspondence to the Commission at the time of CDR submittal listing pertinent units, capacities and unit costs for the project. The Commission will review that information, and make a determination as to whether additional justification is required. If so, the Commission will notify the award partner in writing, and the process will proceed as above.

7. After the project has been noted as ready for detailed design funding, and all other requirements are met, the Commission will issue funding for detailed design activities for the project.

8. The completed detailed design and completed BP will be provided to the Denali Commission as a prerequisite to approval of construction funds. That design submittal should be accompanied with a separate letter from the award partner Project Manager detailing variations in design from that described in the CDR, including the following:

    - ?? Increases or decreases in capacity
    - ?? Major equipment changes
    - ?? Equipment additions
    - ?? Location changes
    - ?? Changes in project participants
    - ?? Changes in labor hours
    - ?? Any other item affecting estimated costs.

    For bulk fuel projects, Denali Commission may, under special circumstances, elect to release funds for construction based on a final design that is 65% completed.

10. If the design variations result in exceeding criteria limits, or if they result in an increase in the estimated cost of the project, justification for those factors must also be provided in the letter.

11. If the justification is found to be adequate, and the project demonstrates sufficient benefit for the associated costs, the Denali Commission staff will note the project as ready for construction funding. If the staff cannot determine the adequacy of the justification, the staff or their designates will undertake a more in-depth review of the detailed design and supporting information. During that review the Commission staff may meet with the award partner or the village, and may request additional information.

12. If the more detailed review convinces the Commission staff that there is adequate justification for the project costs and capacities, then they will note the project as ready for construction funding. If they find that adequate justification for exceeding the criteria limits has not been provided, the award partner may modify the design to bring the project into compliance with those criteria and design costs.

13. If the award partner and the village believe that the limits established by the Commission are too stringent, they have the opportunity to request a third party review of their design. That review typically will be performed by the Corps of Engineers, and will be a complete design review addressing such items as design assumptions, equipment selection, design details and cost details. If the third party reviewer accepts the detailed design, the Denali Commission staff will note the project as ready for construction funding.

14. If the third party reviewer rejects the final design, the award partner has the option of modifying the design, based on the direction and recommendations of the third party reviewer, and resubmitting to the Commission staff for review. That review will be for compliance with the third party review recommendations.

15. If the award partner or village disagrees with the findings of the third party review, they have the final opportunity to appeal to the Infrastructure Sub-Committee. If the Sub-Committee approves the original design, the Denali Commission staff will note the project as ready for construction funding. If the Sub-Committee instead agrees with Commission staff findings, the award partner and village can either modify the design to comply, or the project will be terminated.

16. During purchasing and construction, the award partner must note increases in

17. Any changes for detailed design implemented during construction, such as location changes, equipment modification, increases in capacities, changes in site improvements, etc. must be reported to the Commission and receive Commission agreement prior to implementation.

18. Upon project completion, the award partner Project Manager will send correspondence to the Denali Commission identifying the project as complete and closed, and presenting the final project cost. No additional costs are to be assigned to the project after that time. If that cost exceeds the approved cost, the letter will also contain an explanation of those cost overruns.

19. The Denali Commission views any project that is terminated under this policy before project completion as a failure of the team and system. The Denali Commission recognizes that the Construction Manager has a substantial impact in accomplishing projects within the budget. The Commission strongly recommends that each award partner consider mechanisms for providing performance incentives to their Construction Managers for savings resulting from completing projects below the benchmark unit costs.